

California Monitoring Council: Web Portal Options

August 18, 2008



SB 1070 Goals

- Improve standardization, coordination of monitoring and monitoring data
- Improve assessment processes
- Increase access to data and assessments

Theme-Based Portals

- Concept for web-based access points to data and assessments
- Themes reflect broadly meaningful questions / issues
- Portals enable:
 - different perspectives
 - different space / time scales
 - access to assessment / reporting tools
 - data downloads
 - access to information on design, QA, etc.

Portal Elements

- Monitoring / assessment strategy
- Monitoring / assessment objectives
- Monitoring / information gathering design
- Indicators
- Quality assurance
- Data management
- Data analysis and assessment
- Reporting
- Programmatic evaluation
- Support and infrastructure planning

Example Template

http://www.stateoftheusa.org - The State of the USA Website - Mozilla Firefox

PERCENT OF AMERICAN ADULTS
1972-2004 Fair Research Center

Demonstration Site
Only underlined items are active.

2001 2004 100.00

Work In Progress

The State of the USA

THE KEY NATIONAL INDICATORS INITIATIVE

Home Features Events Forums About Us Feedback My USA Help

Version 0.5b

Text Size A A A

Search Site

Type keywords or phrase

Advanced Search Go

Related Topics

- Plants, Animals and Ecosystems
- Natural Resources
- Landscape

Questions:

- What is the condition of our native plants and animals?
- What are the levels of contaminants in our bodies?
- What diseases are caused by environmental contaminants?

Commentary

- Ten Steps to a Healthier Planet
- Ecology Center
- Balancing Competing Environmental Interests
- Rand Corp.

Show Me

- How to Interpret Environmental Indicators
- Understanding Terminology

Soil, Water & Air

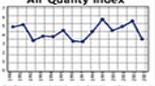
The air we breathe today is cleaner and more healthful than it was decades ago. Since 1970, total national emissions of the six most common air pollutants have been reduced 23 percent.



Simply stated, the environment is composed of air, water and land. But trends in ecological condition reflect the outcome of many different events and activities. Ecosystem condition is the result of a complex combination of resource management at national and state levels, local zoning and land-use decisions, pollution and pollution-prevention activities, natural disturbances, and many other factors. The inter-connection of environmental elements combined with the lack of complete, comprehensive data makes it difficult to track the big picture.

Air Quality

Air Quality Index



On the whole, air quality has improved in real terms since 1970, while, during the same period, the U.S. Gross Domestic Product increased 161 percent, energy consumption increased 42 percent, and vehicle miles traveled increased 149 percent. Nonetheless, some 133 million Americans, especially those on the west coast and in the Midwest, currently live in areas with concentrations of pollutants that sometimes exceed recommended limits.

U.S. EPA, National Air Quality Status and Trends, 2001

Lead in Air

Because of the phaseout of leaded gasoline, lead emissions and concentrations decreased sharply during the 1980s and early 1990s. The 2001 average air quality concentration for lead is 94 percent lower than in 1982. Emissions of lead decreased 93 percent over that same 20-year period.

Lead in Air 1982-2000



The State of the Nation's Ecosystems (update 2006), Movement of Nitrogen, Dr. John Heine III, Center for Science, Economics and the Environment

Nitrogen

Nitrogen From Watersheds



Nitrate, an important plant nutrient, and other forms of nitrogen occur both naturally and as a result of human activities. In excess, however, nitrogen can cause significant water quality problems. The amount of nitrate carried by two of four major U.S. rivers ("load") has increased over the past several decades. The nitrogen load carried by the Mississippi River has approximately doubled since the 1950s.

Lower Higher

The State of the Nation's Ecosystems (update 2006), Movement of Nitrogen, Dr. John Heine III, Center for Science, Economics and the Environment

Soil Erosion

Agricultural soil erosion reduces soil quality and degrades water quality. Even relatively small movements can reduce fertility and make normal cropping practices difficult. From 1982 to 1997, the area within the U.S. with the greatest potential for water erosion decreased by nearly one-third, to 22% of U.S. croplands, due mostly to changes in management practices.

Land Most Prone to Water Erosion



The State of the Nation's Ecosystems (update 2006), Soil Erosion, Dr. John Heine III, Center for Science, Economics and the Environment

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Example Template

http://www.healthebay.org/brc/statemap.asp

Heal the Bay

News & Issues | Get Involved | Conditions | Learn More | Aquarium

State of the Bay | Beach Report Card | Stream Team

In This Section

- BRC Home
- Report Cards
 - Weekly
 - Summer
 - Annual
- Beach Info
 - Closures From Spills
 - Warning Signs
 - Beach Details
- Background Info
 - FAQs
 - Grading Methodology
 - Text Messaging (SMS) for Grades
 - About the BRC
 - Sponsors

Beach Report CardSM

The Beach Report Card is made possible through generous sponsorship from:   simplehuman

Weekly Report Card - California State Map



View Grades:

- 1) Click an area on this map or
- 2) Select from list below:

-- Select County --

What's New?

- 2008 Annual Beach Report Card
- Text messaging (SMS) for grades
- Bacteria limit violations for Santa Monica Bay beaches
- Sponsors

Beach Closures

There are [11 beach closures](#) in California that have been reported to Heal the Bay.

Rain Advisories

There are no [rain advisories](#) in California at this time.

BRC Terminology

Learn all about the [terminology](#) used in the Beach Report Card program!

Beach closure and rain advisory information listed above is based on data provided by California county health agencies. Heal the Bay makes no warranties as to the accuracy or completeness of this information.

News & Issues | Get Involved | Conditions | Learn More | Aquarium
Home | About Us | Contact/Find Us | Join or Donate | Calendar | Store | Media Center | Site Info | Site Map

Potential Major Themes

- Swimming safety (pathogens)
- Seafood consumption safety
- Drinking water safety
- Status of aquatic life



Key Habitats

- Streams
 - Rivers
 - Lakes
 - Groundwater
 - Coastal waters
 - Bays and estuaries
 - Wetlands
 - Intertidal
- 

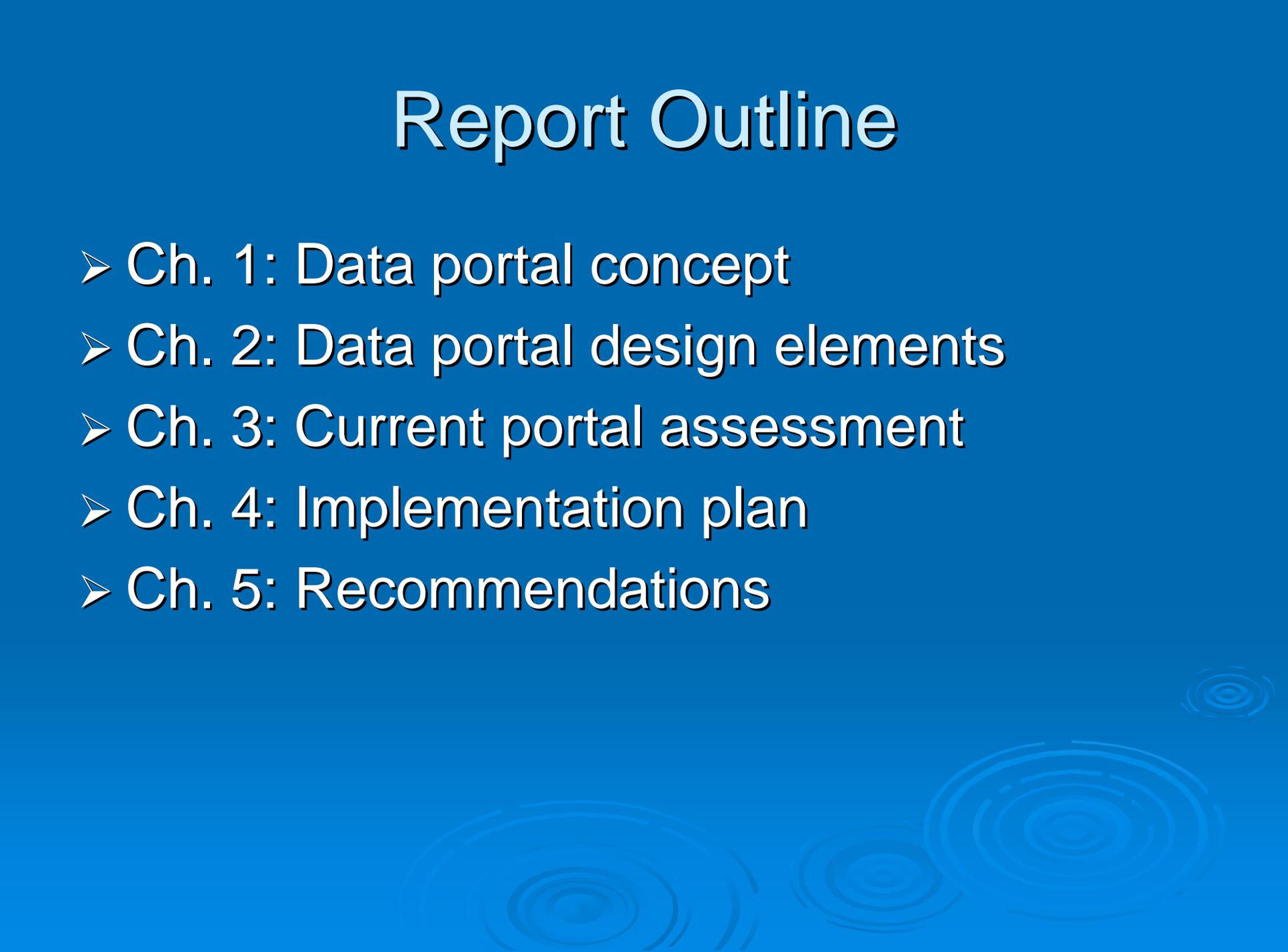
Habitat-Related Subthemes

Themes	Habitats							
	Freshwater				Marine and coastal			
	Streams	Rivers	Lakes	Ground-water	Coastal waters	Bays & estuaries	Wetlands	Intertidal
Swimming safety	X	X	X		X	X		
Seafood consumption safety	X	X	X		X	X		
Drinking water safety	X	X	X	X				
Status of aquatic life	X	X	X		X	X	X	X

Representative Portals

Potential data / issue portals	Ten Essential Assessment Program Elements									
	Strategy	Objectives	Design	Indicators	QA	Data Manag	Analysis / Assessment	Reporting	Evaluation	Support / Planning
<i>Swimming safety</i>										
Freshwater: no cases available	7	4	0	10	2	0	0	0	0	0
Coastal waters, bays & estuaries	10	10	7	9	5	8	10	10	0	0
<i>Seafood consumption safety</i>										
Sportfish, all habitats	8	8	10	10	10	6	10	7	0	0
Shellfish, coastal waters, bays & estuaries	10	10	5	4	5	5	7	8	0	0
<i>Drinking water safety</i>										
Surface water	10	10	10	10	10	10	10	8	10	0
Groundwater	8	8	8	8	5	6	10	9	0	0
<i>Status of aquatic life</i>										
Streams (wadeable)	10	10	10	10	10	10	10	8	3	3
Streams – fisheries	10	7	7	6	5	7	7	7	0	0
Coastal waters – reefs	7	10	10	10	6	7	6	6	0	0
Coastal waters – aquatic life contamination	10	10	10	10	10	0	5	0	0	0
Bays and estuaries – sediment quality	10	10	5	10	5	3	10	4	0	0
Bays and estuaries – San Francisco Bay	10	10	10	10	10	10	8	10	10	10
Wetlands	10	10	7	10	5	7	8	7	0	0
Intertidal	10	5X	10	10	3	4	7	10	0	0
<i>Inventories</i>										
Bay Delta and Tributaries Project (BDAT)	10	NA	NA	5	0	10	NA	NA	0	0
California Data Exchange Center (CDEC)	10	10	3	5	2	10	5	8	0	0
California Spatial Information Library (CaSIL)	10	NA	NA	5	0	10	NA	10	0	0
California Environmental Information Clearing House (CEIC)	6	NA	NA	2	0	6	NA	NA	0	0
San Joaquin River Monitoring & Assessment Strategy – Monitoring Directory	10	NA	NA	NA	6	7	NA	4	0	0

Report Outline

- Ch. 1: Data portal concept
 - Ch. 2: Data portal design elements
 - Ch. 3: Current portal assessment
 - Ch. 4: Implementation plan
 - Ch. 5: Recommendations
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SB 1070 Report Requirements

- Comprehensive monitoring and assessment program strategy (10 yrs)
- Agreement on monitoring indicators
- Reduced redundancies and inefficiencies in existing monitoring, data management
- QA/QC plans to ensure data quality
- Method for compiling, integrating monitoring data
- Accessible and user-friendly electronic system
- Production of timely and complete reports
- Method for tracking effectiveness of water quality improvement projects
- Cost estimates and funding plan